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REPORT NO. 11

Cop 2

Volton finer and Processing less Results 



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38122 January 16, 1976

These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season. These reports are available on request from the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN 38122.

<sup>1/</sup> Summary of Cotton Fiber and Processing Test Results, Crop of 1974, USDA, AMS, Cotton Division, May 1975.

## COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1975

## Discussion of Test Results

Short staple cottons tested from the Southwest through January 9 this season are shorter and finer than last season, according to the Cotton Division, Agricultural Marketing Service, USDA. Samples are stronger at zero gage tests. Picker and card waste is lower. Yarns spun from these samples are stronger and have higher appearance grades. Yarn imperfections are lower than a year earlier and the average spinning potential is a little higher.

Average test results for all medium staple samples tested through January 9 show fiber properties to be about the same as last season. Picker and card waste is lower. Yarn strength and appearance are practically the same as a year earlier. Yarn imperfections are higher and the spinning potential is slightly lower.

Southeastern medium staple samples are shorter than a year ago. Pressley zero gage strength tests show fibers to be stronger. Yarns are slightly weaker than a year earlier and appearance grades are a little lower. Yarn imperfections are higher than last season and the average spinning potential is lower.

South central medium staple samples tested so far this season are coarser and slightly stronger at zero gage fiber tests. Picker and card waste is lower. Yarn strength and appearance are about the same as last season.

Test results show southwestern medium staple samples to be finer than a year ago but to have about the same length and strength characteristics. Nonlint content is higher than last season but picker and card waste is a little lower. Yarns spun from these samples have more imperfections than a year ago. The other yarn qualities are about the same.

Medium staple samples from the West are slightly longer, finer and a little stronger than last season. Picker and card waste is lower. Yarns spun from these samples are stronger but appearance grades are lower. Average spinning potential is higher.

Average test results for all long staple samples show fibers to be shorter but stronger at zero gage tests than a year ago. Picker and card waste and comber waste are higher. Yarns spun from these show stronger combed yarn strength than a year ago. Yarn imperfections are higher. The average spinning potential number is lower.

Long staple samples from the Southeast are considerably shorter than last season. Fibers are coarser and are stronger at zero gage tests. Picker and card waste and comber waste are higher than a year ago. Yarn strength is weaker. Yarn appearance grades are higher than a year ago. Average spinning potential number is lower.

South central long staple samples tested thus far this season show shorter fibers and are stronger at zero gage strength tests. Yarns spun from these samples have higher yarn appearance grades than a year ago. Average spinning potential is lower.

Long staple samples from the West show finer fibers. Shirley Analyzer nonlint content is higher than a year ago. Both picker and card waste and comber waste are much higher than a year earlier at this time. Yarn spun from these samples are stronger but have lower appearance grades. Yarn imperfections are higher than a year ago.

American Pima samples tested to date are longer and stronger than last season. Comber waste is higher. Yarns are stronger than a year earlier.

through January 9, 1976

			S S			- 4 -					
	Spin.	Potent.	Yarn No	70	61	63	58	99	63	8	
Processing test results	5.y	Imperf- ections	No.	27	19	18	23	16 23	18	ત	
	Yarn quality	ppear- ance	Index	91	103	102	87	103	100	5	
		Skein str.	Lbs.	90	102 97	105	101	116	106	4 (22s)	
	2 Δ	o o	Pet.	1°2 4°2	0 0 0 0	5.3	4.0	5.5	0 10 0 00 0 00	0.5	
strenoth	۷ ۷	onlint	Pct.	4°1	w w & &	3.50	3.5	0.0 7.0	3.1	0.5	
	st	1/8" gage	G/tex	21 21	52 52	53 53	53	52 56	53.53	1	quality
results	Fiber	Zero gage	Mpsi	88	81	83 85	83	91	86	ય	
er test	Mike fine-	ness	Rdg.	9.9	# # # #	0°4	4.0	4.5	4.4	0.2	es of modal
Fiber	raph	50/2.5 unif.	Pct.	5t1 t1t1	††† 5††	44	t4 71	46 45	44	2	of sample
	Fibrograph	2.5% span	Inches	8.6.	1.09	1.10	1.07	1.11	1.10	0.02	a limited number of sampl
	Lots		No.	42 53	50 43	128 114	147, 34	70	292 259		
	Staple group Area, and	Crop year		Short Staple: Southwest 1974 1975	Medium Staple: Southeast 1974 1975	South Central 1974 1975	Southwest 1974 1975	West 1974 1975	U.S. Average 1974 1975	Significant dif- ference 2/	1/ Based on

Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Averages of fiber and processing tests from selected gin points in the United States through January 9, 1976  $\pm$  (Continued)

Table 1. -- Cotton:

		SPY	No	67 54	65	89	75			m	
		ctns	No.	17	80 0	6 8	8		ุด ด	a	
		Imprfctns card comb	In In	22	19	39 80	88	Yarn		a	
esults	lity	Appearance carded combed	Indx nbed Ya	110	113	98	107	Combed	110	10	
g Test	Yarn Quality		Lbs. Indx Indx Carded & Combed Yarn	104	102	95 8 <b>2</b>	100	50 s		ľ	
Processing Test Results	Ya	Strength carded combed	SS	118 115	125	148 158	128		19 19	4 (22s) 2 (50s)	
Pro		Strength carded com	Lbs	104	105	128	113	ធធ		4 (22s)	
	Comber	Waste	Pct.	17.2	18.0	15.1	16.1	American Pima	17.8 18.4	0.0	
	P&C	(1)	Pct.	9.6	8 6 6	7.2	8 6	Amer	7.8	0.0	quality
	SA	Non- lint Pct.		4.0	3.8	3.1	33		0, 0, 8, 80	0.5	modal qu
S	ngth	1/8" gage	G/tx	88	88	88	ねな。		32 34	н	of mod
Test Results	-	Zero 1, gage g	Mpsi	8 <b>2</b> 85	88	888	86		100	N	mples
Test		Unif Mike	Rdg.	0 4 4	0.4	3.7	w w oʻm	a. Y	3.6	o. 9	of samples
H	r.	Unif	Pct.	43 43	††	45	†††	Array	32	α	ber
Fi	Length	Span	In.	1.15	1.15	1.16	1.15		1.45	0.02	limited number
	+(	LOUS	No.	1.5	99	12	33		15		٠. ١
Stanle groun	Area and	Crop year	Long Staple:	1974 1975	South Central 1974 1975	West 1974 1975	U.S. Average 1974 1975		Extra Long Staple: West 1974 1975	Significant Difference 2/	ا الآ

2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

1975
of
crop
areas,
by production
characteristics
Quality c
staple:
short
upland
American
2 Cotton,
Table 2

		1	1						v						
		۲	읾	-	51 50	37	37	4 80	51	20	45	99	45	20	44
	Imprfect'ns	מ נען	욄		11	28	59	22	11	34	20	18	31	23	14
arns	Imprf	8s or 74 tx	일		23 28	56	14	09	25	69	20	77	. 65	64	37
- Carded Yarns	ance	22sor 27 tx	욊		120	100	90	90	120	06	06	110	90	96	100
Lts - C	Appearance Index	8s or 74 tx	No		130	110	110	120	120	120	120	120	120	120	130
Processing Test Results		x or	Pet		0.9	4.9	5.5	7.6	8 . 8	1.9	6.2	7.0	6.5	8 • 9	6.5
ing Tea	Elongation	ا بد ب	Pet		NT 7.2 7.5	NT 7.4	NT 6.9	NT 8.4	7.9	N.T.	7.0	NT 8.0	7.0	NT 8.1	40
Process		8 ×	<u>rps</u>		PERCENT 92 7- 104 7-	PERCENT 98 7.	PERCENT 93 6.	PERCE .05	75 PERCENT 103 7	PERCE 10	PERCENT 96 7.	PERCE 97	PERCENT 97 7.6	95 PERCENT 104 8.	90 PERCENT 100 7. 98 8.
	reng	r.	Trps		100 297 319 1	83 306	306	319 1	313	323 1	299	100	302	95	90 302 1 304
	19	2 2	Pet		5. % 5. 8 8. 2	7.2	7.1	6.9 1/	0.9	9.9	7.5	-1	6.2	6.1	7.2
			No No		44	4	3 7	4	9	5 6	9	7	4	4	44
	IC So F	3	SI SI		2 2	2	2	m	-	2	2	2	2	2	22
	S.A. Non-	lint	Pct		2.6	0.4	4.7	4.5	3.1	5.0	5.0	3.4	3.1	<b>6.</b> 3	4 4 9 8
Ŋ	Elon- gat'n	1/8	$\frac{\text{Pct}}{}$		LX571 6.5 6.3	STER 18 7.2	31	ASTER 909 7.1	57	57	STER 18 6.8	LX571 6.8	R 18	7-1	57 7.5 6.8
st Results			G/tex		LANKART 23 23	PAYMASTE 22	STRIPPER 21	PAYMASTE 22	LANKART 21	LANKART 21	PAYMASTE 21	LANKART 22	PAYMASTER 18 21 7.0	LANKART 22	LANKART 21 21
Fiber Test					L 87 87	81	84	85 P	80	L 78	9 <b>4</b> 8	L 86	81	1 E8	82 83
Fi	Mike		Rdg		o- so e- so e- so	2.8	3.0	2.7	3.9	3.0	3.0	3.3	3.4	3.1	8 8 8 8
		<b>9</b> -	Pct R		45 53 8 8	45 2	45 3	44 2	. 44	43 3	43 3	45 3	46	£3 3	44
	it it	0 -	리     집					0.93	0.99		0.93	1.03	0.91	1.00	96.0
	F				1.02	0.92	0.89			0.98					
		Stple	32s	AREA	33.8	29	30	30	31	2/31	513/30	32	30	32	31
Production Area,	iber	de			XAS T 32 42	45	45	42	32	432/	51	32	45	45	45
tion	& & Mum	& Co			SP	SP	SP	SP	SP	T 4	3	T SP	NCT S T	T SP	ON T
roduction Area	Sample Number	Name & Code		WEST	BURKBURNETT MID LT SP 3:	A LT	A LT	LORENZO SLM LT	EY D LI	UCAL M SP	PLA INVIEW LM	ULE MID LT	SILVERTON SLM LT SI	CORDELL SLM LT	DAVIDSON SLY LT SLY LT
ĬĂ,	) Ø	I g		SOUTHWEST	NORTHWEST BURKBURN 1 MID LT 2 SLM LT	L00P 3 SLM	LOOP 3 SLM LT	LORE 3 SL	OLNEY 2 MID LT	PADUCAH 2 SLM SP	PLA 3 LM	RULE 1 MID	SILVERTON 3 SLM LT SP	OKLAHOMA CORDEL 2 SLM L	DAV 1 SL 2 SL
1	- 1	4	•	S	Z									U	

Cotton stuck to processing rolls Reduced from 33 because of bark Reduced from 41 because of bark പ്യത്

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1975--(Continued)

	Spin. Poten-	tial	N N		30
	Imprfectins Spin.	22sor	<u></u>		\$ 80 \$ 45 \$ 45
arns	Impri	8s or 74 tx	N N		162
Carded Y	rance	22sor 27 tx	읾		09
Processing Test Results - Carded Yarns	Appearance Index	8s or 22sor 8s or 22s or 8s or 22sor 8s or 22sor 74 tx 27 tx	외		0 0
est Res	ation	22s or 27 tx	Pct		5.5
ssing T	Elongation	8s or 74 tx	Pet_		7.3 6.7
Proce	th	22s or 27 tx	Tps		80 PERCENT 97 7.
	Strength	8s or 74 tx	Lbs		80 289 292
	Color Raw Stock P & C	Waste	Pet		$9.1\frac{1}{2}$ 289 $9.6\frac{1}{2}$ 292
	Color w Stock	Gra Yel	<u></u>		44
		Gra	임		2 2
	Elon- S.A.	lint	Pct		8 6 • 0 • 0
ıts	Elon-	1/8"	Pet		90 6.4 6.6
Fiber Test Results	er igth	1/8" Gage	G/tex		RILCOT 90 19 6, 21 6
Fiber T	Fiber Strength	Zero Gage	Mpsi		8 5
	Mike		Rdg		2.6
	Digital Fibrograph	Unif	Pct		4 4 6 5
	Dig Fibro	2.5% span	티		0.80
		Stple	32s	AREA	28
Area,	ber	de			45
Production Area, Classification	& Sample Number	No Grade Name & Code		SOUTHWEST	NEW MEXICO PORTALES 2 SLM LT SP 3 SLM LT SP

1/ Cotton stuck to processing rolls

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							- 8 -					
	Spin. Poten-	NO NO		56	55		62		4	52	54	
	Imprfectins	No No		16	22		24		41	41	17	
arns	Imprfe 22s or	S S		19	28		36		51	51	20	
Carded Yarns	h			06	9		9		9	9	70	
1	Appearance Index 22s or 50s or 57 tx			100	80		80		70	09	06	
t Results				4.4	0 • • 0		4.		4.6	4.4	0.4	
Processing Test	Elongation · 22s or 50s or 27 tx	1		5.8	ENT 5.3		ENT 6.0		6.3	S.7	5.8	
Proces		-		PERCENT 35 5.	PERCENT		100 PERCENT 99 36 6.0		PERCENT	PERCENT 34 5.	94 34	
ри	Strength  22s or 50s or 27 tx 12 tv	1		100	97		100		75 P	103 3	100 PERCENT 108 34 5.1	
-	P&C Waste	Pct		5.6	5.7		7.5		11.0 2/	7.5 2/	6.9	
		<u>8</u>		2	8		m		m	4	4	
	Color Raw Stock Gra Yel	8		2	2		m		2	-	m	
	S.A. Non- Lint	Pct		3.6	2.6		4.5		7.4	3.8	4.0	
	Elon- gat'n 1/8"	Pct		5.7	612 6.4		LLE 21 6.6		8 6.6	4789A 6.8	BXL 6.1	
Fiber Test Results	: 8 : 9	G/tex		COKER 201 22 6	MCNAIR 21		STONEVILLE 213 22 6.6		DUNN 118	LOCKETT 22	LOCKETT 23	
er Test	Fiber Strength Zero 1/ Gage Ga	1		64	08		83		99	80	06	
Fib	Mike Z	Rdg		4.5	4.6		3.9		2.7	2.6	4.0	
	14	Pct F		45 4	45		44		42	42	5.	
	ta E	1			1.10				1.06	0.99	1.04	
		-	_				5 1.09	4		32 0.	33 1.	
3,	Stple	32s	AREA	51 34 1.10	26 34	AREA	51 35	AREA	S 52≟/33	42 3	42 3	
n Are	umber				INA A	AL	2		EXA			
Production Area, Classification	Sample Number Grade Name & Code		151	AN PARK	CAROL ING	CENTR	SIPPI	EST	EST OCK LT SI	SVIL	FERNON SLM LT SP	
Prod			SOUTHEAST	GEDRGIA NORMAN 3 LM	SOUTH CAROLINA MANNING 2 SM LT GRA	SOUTH CENTRAL	MISSISSIPP GLENDORA 3 LM	SOUTHWEST	NORTHWEST TI LUBBOCK 3 LM LT SP	ROPESVILLE 3 SLM LT SP	VERNON 1 SLM L	
	No	1	S	9	S	S	Σ	S				

Table 3 -- Cotton, American upland medium staple: Quarity characteristics by production areas, crop of 1977

Reduced from 42 because of bark Cotton stuck to processing rolls പ്രി

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1975--(Continued)

	Spin.	Poten- tial	8		89	52	19
	Imprfect'ns	50s or	외		19	14	27
arns	Imprf	22s or 27 tx	읾		25	16	37
rded Ya	nce	os or 2 tx	욍		02	80	09
lts - Ca	Appearance Index	22s or 5	<u>8</u>		06	06	02
Processing Test Results - Carded Yarns	ation	22s or 50s or 22s or 50s or 22s or 50s or 22s or 50s or 27 tx 12 tx 27 tx 12 tx 27 tx 12 tx 27 tx 12 tx	Pct		5.0	3.7	4 • 4
ssing Te	Elongation	22s or 27 tx	<u>Lbs Lbs Pct</u>		100 PERCENT 105 41 6.5	CENT 5.6	CENT 6.1
Proce	Strength	50s or	Lbs		PER 41	PER 32	100 PERCENT
	Stre	22s or 27 tx	Lbs		100	104	100
	S.A. Raw Stock P & C		Pet		6.3	3 6.4½/ 104 32 5.6	100 PERCENT 6.3 104 36 6.1
	Color w Stock	Yel	શ		ю	6	m
	Raw	Non- Lint Gra Yel	NO NO		٥	-	-
	S.A.	Non- Lint	Pct		2.6	3.3	2.5
ts	Elon-	gat'n 1/8"	Pct		NE 61 7.8	LLE 21	NE 16 7.4
Fiber Test Results	Fiber Strength	1/8" Gage	G/tex		DELTAPINE 61 23 7.8 2.6 0 3 6.3	STONEVILLE 213 23 6.0 3.3	DELTAPINE 16 23 7.4 2.5
iber Te	Fil	Zero Gage	Mpsi		81	83	83
E		Mike	Rdg		3.5	4.7	3.2
	cal	Unif.	Pet		45	43	41
	Digital Fibrograph	Stple 2.5% span	티		1.13	34 1.09	31 35 1.07
		Stple	32s	AREA	36	34	35
Area,	er			A	32	41	31
Production Area, Classification	& Sample Number	No Grade Name & Code		WEST	ARIZONA CASA GRANDE 3 MID LT SP 32 36 1.13	GILA BEND 3 SLM	MARICOPA 3 MID

1/ Cotton stuck to processing rolls

						_	10 -	
	Spin. Poten- tial	&		63	06	92	46	91
	50s or	%		56	64	43 28	29	45
rns	Imprfectins 22s or 50s or 27 tx 12 tx	S		33	63	66 31	32	49
ded Ya	, or	No No		9.	09	902	92	09
s - Car	Appearance Index 22s or 50s or 27 tx 12 tx			80	09	06	9 %	9 8 0
Processing Test Results - Carded Yarns	CU CU	I NO		8 • 8	4.0 8.6	5.0	5.5	4.8 5.1
Test ]	Elongation 22s or 50s or 27 tx 12 tx	Pct		1	4 0	es es		<b>8</b> =
essing	3th Elongs 50s or 22s or 12 tx 27 tx	Pct		95 PERCENT 52 5.7	S C E	RCE		A C E
Proc	150so	Libs		95 PEI 52	22	0	55	6
	Strength 22s or 50s or 27 tx 12 tx	Lbs		138	129	141	143 164	138 156
	P&C and Comber Waste	Pet		9.6	9.9 19.8	13.5	12.3	10.7
		N   N		w <del>*</del>	٧ *	m <b>*</b>	m #	* 8
	Color Raw Stock Gra Yel	81		G	0	1	-	-
	S.A. Non- Lint	Pct		3.7	4.3	6.4	6.2	w 8
ts	Elon- gat'n 1/8"	Pet		ALA 1517-70 4 5.8	ALA 1517-70	1517-V 6.5	6.1	ACALA 1517-C 24 5.7
Fiber Test Results	Fiber rength 1/8"	G/tex		ACALA 24	ACALA 26	ACALA 26	56	ACALA 24
iber Te	Fiber Strength Zero 1/	Mpsi		16	87	88	90	92
뇬	Mike	Rdg		3.2	2.6	3.3	3•3	3.0
	nph Unif.	Pct		4	45	94	46	4
	Digital Fibrograph 2.5% Un	ul I		37 1.17	1.15	1.19	1.19	1.14
	Stple	328	AREA	37	36	37	37	37
rea,		1	<b>⋖</b>	04	41	41	20	41
Production Area,	& & & Sample Number Grade No Name & Code		WEST	ARIZONA DUNCAN 3 SLM PLUS	NEW MEXICO BERIND 3 SLM	TULAROSA 2 SLM	3 LM PLUS	WEST TEXAS TORNILLO 3 SLM

Table 4 -- Cotton, American uptand long staple: Quality characteristics by production areas, crop of 1912

\* Comber Waste and Combed Yarn Data 1/ Insufficient cotton to run comber tests

Table 5 --Cotton, American Pima extra long staple: Quality characteristics by production areas, crop of 1975

	Imprfect'ns	80s or 7 tx	<u>%</u>		1	- -
	Imprf	50s or 12 tx	ଥା		2	ю
arns	Appearance Index	Waste Waste 70s or 80s or 50s or 80s or 50s or 80s or 50s or 80s	읾		110	120
ymbed Y	Appea Ind	50s or 12 tx	N <sub>O</sub>		110	110
ts - C	ation	80s or 7 tx	Pct		4.5	4.5
t Resul	Elongation	50s or 12 tx	Pct		5.1 4.5 110	5.5 4.5 110
ing Tes	Strength	80s or 7 tx	Tps		NT 37	NT 38
Processing Test Results - Combed Yarns		50s or 12 tx	Tps		100 PERCENT 19.4 71 37	100 PERCENT
	Color Raw Stock P & C Comber	Waste	Pct		19.4	100 PERCENT 18.0 71 38
	ت ع م	Waste	Pct.		3 5 6.7	8 0
	or	Gra Yel	NO NO		2	r
	Color Raw Stoo	Gra	윉		6	e
	Elon- S.A.	gat'n Non- 1/8" Lint	Pct		5.2	3.4
t s	Elon-	gat'n 1/8"	Pct		7.0	7.7
Fiber Test Results		78" age	G/tex		PIMA S-4 36 7.0	PIMA S-4 35 7.7 3.4
Fiber Te	Fiber	Zero Gage	Mpsi		104	104
		Mike	Rdg		4.0	3.7
	Array	5	Pet		30	32
	Ar	Þ	티		1.50	1.49
, g .		Stple	32s	AREA	44	46
Production Area, Classification	& Sample Number	Jode			3	4
action	& ple Nu	Grade Name & Code			_	ELD
Produ	Sam	Nan		<b>b</b>	ARIZONA PEORIA 2	STANFIELD
		S.		WEST	ARI PI	1 S

